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10/564,503	01/13/2006	Yasuhiro Kabu	284585US0PCT	8831
22850 7590 08/11/2011 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER WEISZ, DAVID G				
ART UNIT 1777		PAPER NUMBER		
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/564,503  
Filing Date: January 13, 2006  
Appellant(s): KABU ET AL.

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Harris Pitlick  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 6/13/11 appealing from the Office action mailed 3/14/11.

**(1) Real Party in Interest**

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The following is a list of claims that are rejected and pending in the application:

Claims 1, 3, 4 and 6-10 are rejected and are appealed, and claims 2 and 5 are canceled.

**(4) Status of Amendments After Final**

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

**(5) Summary of Claimed Subject Matter**

The examiner has no comment on the summary of claimed subject matter contained in the brief.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

### **WITHDRAWN REJECTIONS**

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner. The 35 U.S.C. 112, second paragraph, rejections have been withdrawn for claims 1, 4 and 6-10.

### **(7) Claims Appendix**

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

### **(8) Evidence Relied Upon**

2004/0015012

Hammon et al.

01-2004

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1, 3, 4, and 6-10** are rejected under 35 U.S.C. 102(e) as being anticipated by Hammon et al. (US 2004/0015012, previously cited) (Hammon).

Regarding claim 1, Hammon discloses a method for supplying reaction gases in a catalytic gas-phase oxidation reaction (see "catalyzed", "gas-phase", "oxidation reactor", paragraph [0001]) in which at least a material to be oxidized (see "methacrolein", [0011]) and a gas containing molecular oxygen (see "molecular oxygen", [0002]) are mixed and the resultant mixture is supplied to a catalytic gas-phase oxidation reactor (see "feed gas mixture", [0029]), wherein a feed rate of the material to be oxidized and a feed rate of the gas containing molecular oxygen are adjusted (see "continuous operation", "feed gas mixture", and "cut-out mechanism" [0032]) so that when a composition of a gas at the inlet of the catalytic gas-phase oxidation reactor is changed from a first reactive composition point represented by plotting a concentration of the material to be oxidized and a concentration of oxygen in the gas at said inlet to a second reactive composition point compositions on the way of the change from the first to the second composition point fall outside an explosion range (see "migrating into the explosion area during the continuous operation", [0032]) wherein the material to be oxidized is isobutylene, tertiary butyl alcohol or methacrolein (see "methacrolein", [0011]), wherein one of the feed rates of the material to be oxidized and the gas containing molecular oxygen is adjusted in advance by increasing it or decreasing it to the direction away from the explosion range and then the other feed rate is adjusted by increasing it or decreasing it to reach the second composition point so that the compositions on the way of the change from the first to the second composition point fall outside the explosion range (see "cut-out mechanism", [0032-0033]).

Regarding claims 3 and 10, Hammon further discloses that the feed rates of the reaction gases are adjusted when certain composition points are reached (see "continuous operation", [0032]). Inherently, a continuous oxidation reaction would have multiple composition points.

Regarding claims 4 and 6, Hammon discloses that a computer is controlled by a characteristic explosion diagram (see "diagram" and "computer", [0146]).

Regarding claims 7-9, Hammon discloses the material to be oxidized may be isobutylene, tertiary butyl alcohol or methacrolein (see "isobutene", "tert-butanol" and "methacrolein", [0011]).

#### **(10) Response to Argument**

On pages 5-6, the appellants argue that the invention as it is presently claimed is characterized by increasing or decreasing a feed rate of a gas, and then increasing or decreasing a feed rate of another gas without shutting off the feed. Further, the appellants argue that the Hammon reference discloses a process in which a feed of gas streams is automatically stopped by a computer system if the distance from the operating point to the nearest explosion limit is below a predetermined minimum value. Further, it is argued that Hammon does not disclose increasing or decreasing a feed rate of a gas, and then increasing or decreasing a feed rate of another gas, in order to, in effect, safely avoid a potential explosion. Further, it is argued that the present claims and specification would not reasonably lead one to include shutting off a feed. Further, it is argued that the term "reactive composition" is at least implicitly supported by the figures and disclosure and shows that the method is performed continuously without

shutting off the feed. The examiner respectfully disagrees. There is nothing in the appellants' claims or specification, including the term "reactive composition", which would lead one to exclude the shutting off of a feed when considering increasing or decreasing a feed rate. The examiner asserts that shutting off a feed would indeed decrease the feed rate. Further, the limitations regarding adjusting the feed rate of a gas and another gas are anticipated by Hammon (see especially paragraphs [0036] and [0043]). Further, nothing in appellants' Figures are compelling to exclude shutting off a feed (see the Figures disclosed in Hammon).

Regarding the arguments drawn to the 35 U.S.C. 112 rejections, the rejection of claim 3 is maintained, as the brackets and parentheses were not removed as they were in claims 1 and 6.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

David G. Weisz

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